



Estane® ZHF 80AT3 TPU

Lubrizol Advanced Materials, Inc. - Thermoplastic Polyurethane Elastomer (Polyether)

Wednesday, November 6, 2019

General Information

Product Description

Type: Estane® ZHF 80AT3 NAT 022 is an 80A non halogen, flame retardant, aromatic Polyether-based thermoplastic polyurethane TPU.

Appearance: Transparent spherical pellets

Features: Zero Halogen

Uses: Wire and Cable

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Aromatic	• Flame Retardant	• Halogen Free
Uses	• Wire & Cable Applications		
RoHS Compliance	• RoHS Compliant		
Appearance	• Clear/Transparent		
Forms	• Pellets		
Processing Method	• Extrusion		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.12		ASTM D792
Mechanical	Nominal Value	Unit	Test Method
Taber Abrasion Resistance (1000 g, H-18 Wheel)	340	mg	ASTM D3389
Elastomers	Nominal Value	Unit	Test Method
Tensile Set	20	%	ASTM D412
Tensile Strength (Break, 0.0394 in)	6670	psi	ASTM D412
Tensile Elongation (Break, 0.0394 in)	600	%	ASTM D412
Compression Set	20	%	ASTM D395
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A)	80		ASTM D2240
Thermal	Nominal Value	Unit	Test Method
Glass Transition Temperature	-36.0	°F	DSC
Vicat Softening Temperature	194	°F	ASTM D1525
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.08 in)	V-2		UL 94
Oxygen Index	25	%	ASTM D2863

Processing Information

Extrusion	Nominal Value	Unit
Drying Temperature	212	°F
Drying Time	3.0	hr
Suggested Max Moisture	< 0.050	%
Cylinder Zone 1 Temp.	365	°F

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Extrusion	Nominal Value	Unit
Cylinder Zone 2 Temp.	365	°F
Cylinder Zone 3 Temp.	374	°F
Cylinder Zone 4 Temp.	365	°F
Adapter Temperature	365	°F
Die Temperature	356	°F

Extrusion Notes

Dew Point: <-30°C

Notes

¹ Typical properties: these are not to be construed as specifications.